

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. (currently amended) Within a digital acquisition device, a method of enhancing parameters of a digital image as part of a post-image capture process using face detection within said captured image to achieve one or more desired image parameters, comprising:

(a) determining default values of relative exposure or size, or both, of at least some portion of said digital image;

(b) determining the values of one or more camera acquisition parameters;

(c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining values corresponding to relative exposure or size, or both, of said groups of pixels; and

(d) comparing one or more default values of relative exposure or size, or both, with one or more captured values of relative exposure or size, or both, based upon analysis of said image of said face; and

(e) adjusting in a post-image capture process said image parameters including adjusting said values of relative exposure or size, or both, of said face, and

(f) removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces, and

(g) wherein the removing being performed by increasing a sensitivity level of said face identifying.

Claim 2. (original) The method of claim 1, each of the steps being performed within a digital still camera.

Claim 3. (original) The method of claim 1, each of the steps being performed within a digital video camera.

Claim 4. (original) The method of claim 1, comprising determining and adjusting one or more values of relative exposure of said face.

Claim 5. (currently amended) Within a digital acquisition device, a method of enhancing acquisition parameters of a digital image as part of an image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, comprising:

- (a) determining default values of one or more image attributes of at least some portion of said digital image;
- (b) determining the values of one or more camera acquisition parameters;
- (c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining corresponding image attributes to said groups of pixels; and
- (d) comparing one or more default image attribute values with one or more captured image attribute value based upon analysis of said image of said face; and
- (e) adjusting said camera acquisition parameters including adjusting said image attribute values,
- (f) wherein the identifying of face pixels is automatically performed by an image processing apparatus, the method further comprising manually removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces that correspond to said image of said face, and
- (g) wherein multiple groups of pixels that correspond respectively to multiple images of faces within the digital-captured image remain identified after

the removing, the method further comprising performing automated processing of the remaining multiple groups of pixels corresponding to the multiple images of faces including adjusting in a post-image capture process values of one or more parameters of each of said multiple remaining faces.

Claim 6. (original) A method of manually removing one or more detected faces as recited in claim 5, the method being performed in response to false detection of regions as faces.

Claim 7. (previously presented) A method of manually removing one or more detected faces as recited in claim 5, the method being performed in response to a determination to concentrate on less said image faces than faces identified in said identifying.

Claim 8. (currently amended) A method of manually removing one or more detected faces ~~as recited in claim 5,~~ within a digital acquisition device, including a method of enhancing acquisition parameters of a digital image as part of an image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, comprising:

(a) determining default values of one or more image attributes of at least some portion of said digital image;

(b) determining the values of one or more camera acquisition parameters;

(c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining corresponding image attributes to said groups of pixels; and

(d) comparing one or more default image attribute values with one or more captured image attribute value based upon analysis of said image of said face; and

(e) adjusting said camera acquisition parameters including adjusting said image attribute values,

(f) wherein the identifying of face pixels is automatically performed by an image processing apparatus, the method further comprising manually removing one or more of said plurality of groups of pixels that correspond to said image of said face, and

(g) wherein the method being performed by increasing a sensitivity level of said face identifying.

Claim 9. (original) A method of manually removing one or more detected faces as recited in claim 5, the method being performed by an interactive visual method.

Claim 10. (original) An interactive visual method of manually removing one or more detected faces as recited in claim 5, the method being performed using an image acquisition built-in display.

Claim 11. (previously presented) The method of claim 1, the face pixels identifying being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of another face within the image.

Claim 12. (previously presented) The method of claim 1, the face pixels identifying being automatically performed by an image processing apparatus which receives a relative value as to a detection assurance.

Claim 13. (currently amended) ~~The method of claim 1~~ Within a digital acquisition device, a method of enhancing parameters of a digital image as part of a post-

image capture process using face detection within said captured image to achieve one or more desired image parameters, comprising:

(a) determining default values of relative exposure or size, or both, of at least some portion of said digital image;

(b) determining the values of one or more camera acquisition parameters;

(c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining values corresponding to relative exposure or size, or both, of said groups of pixels; and

(d) comparing one or more default values of relative exposure or size, or both, with one or more captured values of relative exposure or size, or both, based upon analysis of said image of said face; and

(e) adjusting in a post-image capture process said image parameters including adjusting said values of relative exposure or size, or both, of said face, and

(f) wherein the identifying of face pixels is being automatically performed by an image processing apparatus which receives different a relative values value as to an estimated importance of different said detected regions that are identified as faces within the digitally-captured image.

Claim 14. (currently amended) The method of claim 13, ~~the identifying of face pixels being automatically performed by an image processing apparatus;~~ the method further comprising manually modifying one or more of said relative ~~values~~ value as to the estimated importance of said different detected regions that are identified as faces within the digitally-captured image.

Claim 15. (currently amended) A method of digital image processing using face detection to achieve a desired image parameter, comprising:

(a) identifying a group of pixels that correspond to an image of a face within a digitally-detected image;

(b) determining initial values of relative exposure or size, or both, of at least some of the pixels; and

(c) determining an initial relative exposure or size, or both, of the digitally-detected image of said face based on the initial values; and

(d) automatically adjusting values of the relative exposure or size, or both, of pixels within the digitally-detected image of said face based upon comparison of the initial relative exposure or size, or both, of said face with a desired relative exposure or size, or both, of said face, and

(e) removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces, and

(f) wherein the removing being performed by increasing a sensitivity level of said face identifying.

Claim 16. (original) The method of claim 15, the method being performed within a digital camera.

Claim 17. (previously presented) The method of claim 16, comprising determining one or more initial values of relative exposure of said face, and adjusting one or more values of the relative exposure of said face.

Claim 18. (previously presented) The method of claim 16, the face pixels identifying being automatically performed by an image processing apparatus, the method further comprising manually removing a false indication of another face within the image.

Claim 19. (previously presented) The method of claim 16, the face pixels identifying being automatically performed by an image processing apparatus, the

method further comprising manually adding an indication of another face within the image.

Claim 20. (previously presented) The method of claim 15, the one or more parameters including determining one or more initial values of size of said face, and adjusting one or more values of size of said face.

Claim 21. (currently amended) A method of digital image processing using face detection to achieve a desired image parameter, comprising:

(a) identifying a group of pixels that correspond to an image of a face within a digitally-detected image;

(b) determining initial values of one or more parameters of at least some of the pixels; and

(c) determining an initial parameter of the digitally-detected image based on the initial values; and

(d) automatically adjusting values of the one or more parameters of pixels within the digitally-detected image based upon comparison of the initial parameter with the desired parameter,

(e) wherein the identifying of face pixels is automatically performed by an image processing apparatus, the method further comprising manually adding ~~removing a false an~~ indication of another face within the image, and

(f) wherein multiple groups of pixels corresponding to multiple images of faces within the digital-captured image are identified after the adding, and the method further comprises performing automated processing of the multiple groups of pixels corresponding to the multiple images of faces including adjusting in a post-image capture process one or more values of one or more parameters of the multiple faces.

Claim 22. (currently amended) The method of claim 21 45, the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of another face within the image.

Claim 23. (currently amended) Within a digital acquisition device, one or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of enhancing parameters of a digital image as part of a post-image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, the method comprising:

- (a) determining default values of relative exposure or size, or both, of at least some portion of said digital image;
- (b) determining the values of one or more camera acquisition parameters;
- (c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining values corresponding to relative exposure or size, or both, of said groups of pixels; and
- (d) comparing one or more default values of relative exposure or size, or both, with one or more captured values of relative exposure or size, or both, based upon analysis of said image of said face; and
- (e) adjusting in a post-image capture process said image parameters including adjusting said values of relative exposure or size, or both, of said face, and
- (f) removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces, and
- (g) wherein the removing being performed by increasing a sensitivity level of said face identifying.

Claim 24. (previously presented) The one or more storage devices of claim 23, the method being performed within a digital still camera.

Claim 25. (previously presented) The one or more storage devices of claim 23, the method being performed within a digital video camera.

Claim 26. (previously presented) The one or more storage devices of claim 23, the one or more parameters including relative exposure of said face.

Claim 27. (currently amended) Within a digital acquisition device, one or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of perfecting acquisition parameters of a digital image as part of an image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, the method comprising:

- (a) determining default values of one or more image attributes of at least some portion of said digital image;
- (b) determining the values of one or more camera acquisition parameters;
- (c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining corresponding image attributes to said groups of pixels; and
- (d) comparing one or more default image attribute values with one or more captured image attribute value based upon analysis of said image of said face; and
- (e) adjusting said camera acquisition parameters including adjusting said image attribute values,

(f) the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces that correspond to said image of said face, and

(g) wherein multiple groups of pixels that correspond respectively to multiple images of faces within the digital-captured image remain identified after the removing, the method further comprising performing automated processing of the remaining multiple groups of pixels corresponding to the multiple images of faces including adjusting in a post-image capture process values of one or more parameters of each of said multiple remaining faces.

Claim 28. (previously presented) The one or more storage devices of claim 27, the manual removing of one or more detected faces being performed in response to false detection of regions as faces.

Claim 29. (previously presented) The one or more storage devices of claim 27, the manual removing of one or more detected faces being performed in response to a determination to concentrate on less said image faces than faces identified in said identifying.

Claim 30. (currently amended) ~~The one or more storage devices of claim 27,~~ Within a digital acquisition device, one or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of perfecting acquisition parameters of a digital image as part of an image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, the method comprising:

(a) determining default values of one or more image attributes of at least some portion of said digital image;

(b) determining the values of one or more camera acquisition parameters;

(c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining corresponding image attributes to said groups of pixels; and

(d) comparing one or more default image attribute values with one or more captured image attribute value based upon analysis of said image of said face; and

(e) adjusting said camera acquisition parameters including adjusting said image attribute values, and

(f) the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually removing one or more of said plurality of groups of pixels that correspond to said image of said face, and

(g) wherein the manual removing of one or more detected faces being performed by increasing a sensitivity level of said face identifying.

Claim 31. (previously presented) The one or more storage devices of claim 27, the manual removing one or more detected faces as recited being performed by an interactive visual method.

Claim 32. (original) The one or more storage devices of claim 27, the method being performed using an image acquisition built-in display.

Claim 33. (previously presented) The one or more storage devices of claim 23, the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of another face within the image.

Claim 34. (previously presented) The one or more storage devices of claim 23, the identifying of face pixels being automatically performed by an image processing apparatus which receives a relative value as to a detection assurance.

Claim 35. (currently amended) ~~The one or more storage devices of claim 23,~~
Within a digital acquisition device, one or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of enhancing parameters of a digital image as part of a post-image capture process using face detection within said captured image to achieve one or more desired image acquisition parameters, the method comprising:

(a) determining default values of relative exposure or size, or both, of at least some portion of said digital image;

(b) determining the values of one or more camera acquisition parameters;

(c) identifying a plurality of groups of pixels that correspond to an image of a face within the digitally-captured image, and determining values corresponding to relative exposure or size, or both, of said groups of pixels; and

(d) comparing one or more default values of relative exposure or size, or both, with one or more captured values of relative exposure or size, or both, based upon analysis of said image of said face; and

(e) adjusting in a post-image capture process said image parameters including adjusting said values of relative exposure or size, or both, of said face, and

(f) wherein the identifying of face pixels is being automatically performed by an image processing apparatus which receives a relative values value as to an estimated importance of different said detected regions identified as faces within the digitally-captured image.

Claim 36. (currently amended) The one or more storage devices of claim 35, ~~the identifying of face pixels being automatically performed by an image processing apparatus;~~ the method further comprising manually modifying one or more of said relative values ~~value~~ as to the estimated importance of said different detected regions identified as faces within the digitally-captured image.

Claim 37. (currently amended) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of digital image processing using face detection to achieve a desired image parameter, comprising:

(a) identifying a plurality of groups ~~group~~ of pixels that correspond to images of faces ~~an image of a face~~ within a digitally-detected image;

(b) determining initial values of relative exposure or size, or both, of at least some of the pixels; and

(c) determining an initial relative exposure or size, or both, of the digitally-detected images ~~image~~ of said faces ~~face~~ based on the initial values; ~~and~~

(d) automatically adjusting values of the relative exposure or size, or both, of pixels within the digitally-detected images ~~image~~ of said faces ~~face~~ based upon comparison of the initial relative exposure or size, or both, of said faces ~~face~~ with a desired relative exposure or size, or both, of said faces ~~face~~; ~~and~~

(e) removing identification of one or more of said plurality of groups of pixels as corresponding respectively to one or more images of one or more faces, and

(f) wherein the removing being performed by increasing a sensitivity level of said face identifying.

Claim 38. (original) The one or more storage devices of claim 37, the method being performed within a digital camera.

Claim 39. (previously presented) The one or more storage devices of claim 38, comprising determining one or more initial values of relative exposure of said face, and adjusting one or more values of the relative exposure of said face.

Claim 40. (previously presented) The one or more storage devices of claim 38, the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually removing a false indication of another face within the image.

Claim 41. (previously presented) The one or more storage devices of claim 38, the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of another face within the image.

Claim 42. (previously presented) The one or more storage devices of claim 37, the method comprising determining and adjusting a relative exposure of said face.

Claim 43. (currently amended) One or more processor readable storage devices having processor readable code embodied thereon, said processor readable code for programming one or more processors to perform a method of digital image processing using face detection to achieve a desired image parameter, comprising:

(a) identifying a group of pixels that correspond to an image of a face within a digitally-detected image;

(b) determining initial values of one or more parameters of at least some of the pixels; and

(c) determining an initial parameter of the digitally-detected image based on the initial values; and

(d) automatically adjusting values of the one or more parameters of pixels within the digitally-detected image based upon comparison of the initial parameter with the desired parameter,

(e) wherein the identifying of face pixels is automatically performed by an image processing apparatus, the method further comprising manually adding ~~removing a false~~ an indication of another face within the image, and

(f) wherein multiple groups of pixels corresponding to multiple images of faces within the digital-captured image are identified after the adding, and the method further comprises performing automated processing of the multiple groups of pixels corresponding to the multiple images of faces including adjusting in a post-image capture process one or more values of one or more parameters of the multiple faces.

Claim 44. (currently amended) The one or more storage devices of claim 43 ~~37~~, the identifying of face pixels being automatically performed by an image processing apparatus, the method further comprising manually adding an indication of another face within the image.